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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,288	05/09/2002	Paolo Pevarello	218195USOPCT	9829

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EXAMINER	
ANDERSON, REBECCA L	
ART UNIT	PAPER NUMBER
1626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/049,288	PEVARELLO ET AL.	
	Examiner	Art Unit	
	Rebecca L Anderson	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/9/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-23 are currently pending in the instant application and are rejected.

Election/Restrictions

Applicant's election with traverse in the reply filed on 4 November 2003 is acknowledged, however, upon reconsideration, the requirement for restriction has been withdrawn and claims 1-23 are examined in their entirety.

Specification

The amendment filed 3 November 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The amendment to pages 3 and 4 wherein R is a C3-C6 cycloalkyl group, which is optionally substituted with a straight or branched C1-C6alkyl group and the amendment to pages 5 and 6 wherein R is a C3-C6 cycloalkyl group, which is optionally substituted with a straight or branched C1-C6alkyl group. Applicant points to support for this amendment on pages 4, lines 29-30, page 6, lines 24-25 and in the last clause of each of original claims 1 and 15 and further on page 11, lines 9-10. However, the statement that applicant relies upon for support of the amendment, "provided that when n is 0 and R2 is hydrogen, R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group" does not provide support for this amendment. The statement that applicant refers to for support on the various pages and claims only provides

support for R being a C3-C6 cycloalkyl group when n is 0 and R2 is hydrogen. Support is not provided for R being a C3-C6 cylcoalkyl group when n is 1-4 and/or R2 and R1, together with the nitrogen atom to which they are bonded, form a heterocyclyl or heteroaryl group. While there are numerous specific species of compounds found in the specification and claims which contain R as a C3-C6 cyclalkyl group when n is not 0 and/or R2 is not hydrogen, this also does not provide support for the amendments mentioned above since these specific compounds only provide support for themselves and not an amendment to a broad genus claim which encompasses other combinations and compounds wherein R as a C3-C6 cycloalkyl group when n is not 0 and R2 is not hydrogen which do not find support in the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-12, 14-19 and 21-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the amendment to claims 1 and 15, filed 4 November

2003, to include wherein R is a C3-6 cycloalkyl group, which is optionally substituted with a straight or branched C1-C6 alky group, does not find support in the original disclosure and is considered new subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant points to support for this amendment on pages 4, lines 29-30, page 6, lines 24-25 and in the last clause of each of original claims 1 and 15 and further on page 11, lines 9-10. However, the statement that applicant relies upon for support of the amendment, "provided that when n is 0 and R2 is hydrogen, R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group" does not provide support for this amendment. The statement that applicant refers to for support on the various pages and claims only provides support for R being a C3-C6 cycloalkyl group when n is 0 and R2 is hydrogen. Support is not provided for R being a C3-C6 cylcoalkyl group when n is 1-4 and/or R2 and R1, together with the nitrogen atom to which they are bonded, form a heterocyclyl or heteroaryl group. While there are numerous specific species of compounds found in the specification and claims which contain R as a C3-C6 cyclalkyl group when n is not 0 and/or R2 is not hydrogen, this also does not provide support for the amendments mentioned above since these specific compounds only provide support for themselves and not an amendment to a broad genus claim which encompasses other combinations and compounds wherein R as a C3-C6 cycloalkyl group when n is not 0 and R2 is not hydrogen which do not find

support in the original disclosure. Applicant is required to cancel the new matter in the reply to this Office Action.

Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As stated in the MPEP 2164.01 (a), "There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue."

In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. 112, first paragraph, have need described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,
7. the quantity of experimentation needed, and
8. the level of the skill in the art.

In the instant case,

The nature of the invention

The nature of the invention of claims 1-14 is the treatment of cell proliferative disorders associated with an altered cell dependent kinase activity

with the compound of the formula (I). Pages 4 and 5 discloses that in the preferred embodiment the cell proliferative disorder is selected from cancer, Alzheimer's disease, viral infections (which includes HIV), autoimmune diseases and neurodegenerative disorders.

The state of the prior art and the predictability or lack thereof in the art

The state of the prior art is that the pharmacological art involves screening in vitro and in vivo to determine which compounds exhibit the desired pharmacological activities (i.e. what compounds can treat which specific diseases by what mechanism). There is no absolute predictability even in view of the seemingly high level of skill in the art. The existence of these obstacles establishes that the contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting any therapeutic regimen on its face.

The instant claimed invention is highly unpredictable as discussed below:

It is noted that the pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity. In re Fisher, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. In the instant case, the instant claimed invention is highly unpredictable since one skilled in the art would recognize that in regards to therapeutic effects of the above listed diseases, whether or not the disease is effected by the inhibition of cdk/cyclin kinase would make a difference.

Applicants are claiming a method of treating the diseases listed in the claims such as viral infections, which includes HIV, by administering a compound

of the formula (I). As such, the specification fails to enable the skilled artisan to use the compounds of the formula (I) to treat HIV. In addition, there is no proof that the claimed compounds have ever been administered to a human or to an animal model. The obstacles to therapeutic approaches and vaccine development with regard to retroviruses associated with AIDS in humans are well documented in the literature. See, for example, Huff {J. Med. Chem. 34(8) 1991, p. 2305-2314} on page 2314. These obstacles include and are not limited to : 1) the extensive genomic diversity associated with HIV, particularly with respect to the gene encoding the envelope protein, 2) the fact that the modes of viral transmission include virus-infected mononuclear cells, which pass the infecting virus to other cells in a convert form, as well as via free virus transmission, 3) existence of a latent form of the virus, 4) the ability of the retrovirus to traverse the blood brain barrier and 5) the complexity and variation of the elaboration of the disease. The existence of these obstacles establishes that the contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting therapeutic regimen on its face. In addition, there is no established correlation between in vitro activity and accomplishing treatment of viral infections, especially HIV infections, in vivo, and those skilled in the art would not accept allegations in the instant specification to be reliable predictors of success, and those skilled in the art would not be able to use the compounds of the formula (I) since there is no description of an actual method wherein a viral infection in a host is treated.

Applicants claims also include the treatment of any cancer. The state of the prior art is that cancer therapy remains highly unpredictable. The various types of cancers have different causative agents, involve different cellular mechanisms, and consequently, differ in treatment protocol. It is known that the challenge of cancer treatment has been to target specific therapies to pathogenetically distinct tumor types, that cancer classification has been based primarily on morphological appearance of the tumor and that tumors with similar histopathological appearance can follow significantly different clinical courses and show different responses to therapy (Golub et al. page 531) Furthermore, it is known that chemotherapy is most effective against tumors with rapidly dividing cells and that cells of solid tumors divide relatively slowly and chemotherapy is often less effective against them. It is also known in the prior art (Lala et al. page 91) that the role of NO in tumor biology remains incompletely understood with both the promotion and inhibition of NO mentioned for the treatment of tumor progression and only certain human cancers may be treated by selected NO-blocking drugs. These example shows that there are different cellular mechanisms, the unpredictability in the art and the different treatment protocols.

Applicants claims are also drawn to the treatment of Alzheimer's disease. It is the state of the art that there is no known cure or prevention for Alzheimer's disease and that there are only four medications available in the United States available to temporarily slow the early stages of Alzheimer's disease. The current drugs for the treatment of Alzheimer's disease, Aricept, Exelon, Reminyl and Cognex, treat early stages of Alzheimer's disease by delaying the

breakdown of acetylcholine. Memantine, which blocks excess amounts of glutamate treats late stage Alzheimer's disease. (URL:http://www.cnn.com/2003/HEALTH/conditions/09/24/alzheimers.drug.ap/index.html

Hence, in the absence of a showing of correlation between all the diseases claimed as capable of treatment by the inhibition of cdk/cyclin kinase, one of skill in the art is unable to fully predict possible results from the administration of the compound of the claims due to the unpredictability of the role of the inhibition of cdk/cyclin kinase, and since HIV, a viral disease is known to have many obstacles that would prevent one of ordinary skill in the art from accepting therapeutic regimen on its face, since various types of cancers have different causative agents, involve different cellular mechanisms and differ in treatment protocol and since it is known that there is no known cure for Alzheimer's disease and treatment protocols for Alzheimer's disease depend on the stage of the disease.

The amount of direction or guidance present and the presence or absence of working examples

The only direction or guidance present in the instant specification is the listing of diseases applicant considers as cell proliferative disorders associated with an altered cell dependent kinase activity, pages 2, 3 and 5. Cdk/cyclin kinase assays are found on pages 24-26. There are no working examples present for the treatment of any cell proliferative disorder.

The breadth of the claims

The breadth of the claims is the treatment of any cell proliferative disorder associated with an altered cell dependent kinase activity with any compound of the formula (I). Cell proliferative disorders, include, for example, as found on pages 4 and 5 of the instant specification, cancer, Alzheimer's disease, viral infections (which includes HIV), autoimmune diseases and neurodegenerative disorders.

The quantity of experimentation needed

The quantity of experimentation needed is undue experimentation. One of skill in the art would need to determine what diseases out of all diseases would be benefited (treated) by the inhibition of cdk/cyclin kinase and would furthermore then have to determine which of the claimed compounds would provide treatment of which disease, if any.

The level of the skill in the art

The level of skill in the art is high. However, due to the unpredictability in the pharmaceutical art, it is noted that each embodiment of the invention is

required to be individually assessed for physiological activity by in vitro and in vivo screening to determine which compounds exhibit the desired pharmacological activity and which diseases would benefit from this activity.

Thus, the specification fails to provide sufficient support of the broad use of the compound of the instant claims for the treatment of any cell proliferative disorders associated with an altered cell dependent kinase activity. As a result necessitating one of skill to perform an exhaustive search for which diseases can be treated by what compounds of the instant claims in order to practice the claimed invention.

Genentech Inc. v. Novo Nordisk A/S (CA FC) 42 USPQ2d 1001 , states that " a patent is not a hunting license. It is not a reward for search , but compensation for its successful conclusion" and "[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable".

Therefore, in view of the Wands factors and In re Fisher (CCPA 1970) discussed above, to practice the claimed invention herein, a person of skill in the art would have to engage in undue experimentation to test which diseases can be treated by the compound encompassed in the instant claims, with no assurance of success.

This rejection can be overcome deleting the claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as

to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 15-20 and 23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 9 and 15-28 of U.S. Patent No. 6,387,900 Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Applicants instant claim 15 claims a 3-ureido-pyrazole derivative represented by the formula (I) wherein R is a C3-C6 cycloalkyl group, which is optionally substituted with a straight or branched C1-C6 alkyl group, or is a C1-C6 alkyl, aryl or arylalkyl group, which is optionally substituted; R1 is –(CH2)n-R3; n is 0 or an integer from 1 to 4; R3 is hydrogen, hydroxy, amino, or it is

selected from the group consisting of cyclalkyl, aryl and heterocyclyl, which is optionally substituted; R2 is hydrogen, or R2 and R1 together with the nitrogen atom to which they are bonded, form a heterocyclyl or heteroaryl group, which is optionally substituted provided that when n is 0 and R2 is hydrogen, R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group.

Claim 1 of US Patent No. 6,387,900 anticipates and therefore renders claim 15 as rejected under obvious-type double patenting since claim 1 claims a 3-ureido-pyrazole compound represented by the formula (I) wherein R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group or is a C1-C6 alkyl or arylalkyl group, which is optionally substituted, R1 is –(CH2)n-R3; n is 0 or an integer from 1 to 4; R3 is hydrogen, hydroxy, amino, or a group selected from the group consisting of cycloalkyl, aryl and heterocyclyl, which is optionally substituted; wherein said heterocyclyl is selected from the group consisting of benzodioxolyl, quinolyl, isoquinolyl, quinoxalyl, indolyl, optionally benzocondensed pyrrolyl, furanyl, thienyl, imidazolyl, pyrazolyl, thiazolyl, oxazolyl, isoxazolyl, pyridyl, pyrazinyl, pyrimidyl, pyrrolidinyl, piperidinyl, benzocondensed pyridinyl, piperazinyl, thiophenyl , and morpholinyl; R2 is hydrogen, or R2 and R1, together with the nitrogen atom to which they are bonded, form a group selected from the group consisting of piperidino, piperazino and morpholino, which is optionally substituted; provided that when n is 0 and R2 is hydrogen, R is a C3-C6 cycloalkyl group optionally substituted with a straight

or branched C1-C6 alkyl group. This anticipates applicants instant claim 15 since this disclosure is fully encompassed by applicants instant claim 15.

Applicants instant claim 16 claims the 3-ureido-pyrazole derivative of claim 15 wherein R is a C3-C6 cycloalkyl or an optionally substituted straight or branched C1-C4 alkyl group, a cycloalkyl group, an aryl group or an arylalkyl group; R1 is a C1-C4 alkyl group or a phenyl, phenylalkyl, heteroaryl, heteroarylalkyl or heterocyclyl group, which is optionally substituted as defined in claim 15.

Claim 2 of US Patent NO. 6,387,900 claims the 3-ureido-pyrazole compound of claim 1, wherein R is a C3-C6 cycloalkyl or an optionally substituted straight or branched C1-C4 alkyl group or an arylalkyl group; R1 is a group selected from the group consisting of C1-C4 alkyl, phenyl, benzodioxolyl, quinolyl, isoquinolyl, quinoxalyl, indolyl, optionally benzocondensed pyrrolyl, furanyl, thienyl, imidazolyl, pyrazolyl, thiazolyl, oxazolyl, isoxazolyl, pyridyl, pyrazinyl, pyrimidyl, pyrrolidinyl, piperidinyl, benzocondensed pyridinyl, piperazinyl, thiophenyl , and morpholinyl, which is optionally substituted. This anticipates applicants instant claim 16 since claim 1 from which the conflicting claim depends is fully encompassed by applicants instant claim 15, from which this claim depends, and since this disclosure is fully encompassed by applicants instant claim 16.

Applicants instant claim 17 claims the 3-ureido-pyrazole derivative of claim 15, wherein R is a C3-C6 cycloalkyl; R1 is a C1-C4 alkyl group substituted by hydroxy or amino, or is an aryl, arylalkyl, heteroacyclyl or heterocyclylalkyl,

wherein the aryl or heterocyclyl moiety is selected from the group consisting of phenyl or optionally benzocondensed pyridinge, indole, thiophene, thiazole, isoxazole, furane, piperidine, morpholine, each optionally further substituted.

Claim 3 of US Patent NO. 6,387,900 claims the 3-ureido-pyrazole compound of claim 2, wherein R is C3-C6 cycloalkyl and R1 is a C1-C4 alkyl group substituted by hydroxy or amino, or is an aryl, arylalkyl, heterocyclyl or heterocyclylalkyl, wherein the aryl or heterocyclyl moiety is selected from the group consisting of phenyl or optionally benzocondensed pyridine, indole, thophene, thiazole, isoxazole, furane, piperidine, morpholine, each optionally further substituted. This anticipates applicants instant claim 17 since claim 1 from which the conflicting claim depends is fully encompassed by applicants instant claim 15, from which this claim depends, and since this disclosure is fully encompassed by applicants instant claim 17.

Applicants instant claim 18 claims the 3-ureido-pyrazole derivative of claim 15, wherein R1 and R2, together with the nitrogen atom to which they are bonded, form an optionally substituted heterocyclyl ring.

Claim 4 of US Patent NO. 6,387,900 claims the 3-ureido-pyrazole compound of claim 1, wherein R1 and R2 together with the nitrogen atom to which they are bonded, form an optionally substituted piperidino, piperazino or morpholino ring. This anticipates applicants instant claim 18 since claim 1 from which the conflicting claim depends is fully encompassed by applicants instant claim 15, from which this claim depends, and since this disclosure is fully encompassed by applicants instant claim 18.

Applicants instant claim 20 claims a variety of specific compounds dependent from the 3-ureido-pyrazole derivative of claim 15, such as N-(3-cyclopropyl-1H-pyrazol-5-yl)-N'-[2-(1-piperidinyl)ethyl]urea.

Claim 9 of US Patent No. 6,387,900 claims a variety of specific compounds dependent from the compound of claim 1, such as N-(3-cyclopropyl-1H-pyrazol-5-yl)-N'-[2-(1-piperidinyl)ethyl]urea. This anticipates applicants instant claim 20 since claim 1 from which the conflicting claim depends is fully encompassed by applicants instant claim 15, from which this claim depends, and since this disclosure is fully encompassed by applicants instant claim 20.

Applicants instant claim 23 claims a pharmaceutical compositon, comprising the 3-ureido-pyrazole derivative of claim 15 and at least one pharmaceutically acceptable carrier and/or diluent.

Claim 15 claims a pharmaceutical composition, comprising a 3-ureido-pyrazole compound represented by the formula (I) wherein R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group or is a C1-C6 alkyl or arylalkyl group, which is optionally substituted, R1 is –(CH2)n-R3; n is 0 or an integer from 1 to 4; R3 is hydrogen, hydroxy, amino, or a group selected from the group consisting of cycloalkyl, aryl and heterocyclyl, which is optionally substituted; wherein said heterocyclyl is selected from the group consisting of benzodioxolyl, quinolyl, isoquinolyl, quinoxalyl, indolyl, optionally benzocondensed pyrrolyl, furanyl, thienyl, imidazolyl, pyrazolyl, thiazolyl, oxazolyl, isoxazolyl, pyridyl, pyrazinyl, pyrimidyl, pyrrolidinyl, piperidinyl, benzocondensed pyridinyl, piperazinyl, thiophenyl , and morpholinyl; R2 is

hydrogen, or R2 and R1, together with the nitrogen atom to which they are bonded, form a group selected from the group consisting of piperidino, piperazino and morpholino, which is optionally substituted; provided that when n is 0 and R2 is hydrogen, R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group, and least one pharmaceutically acceptable carrier and/or diluent. Claims 16-28 are dependent claims of claim 15 which provide further limitations for the pharmaceutical composition. This anticipates applicants instant claim 23 since the disclosure of conflicting claim 15 and also conflicting claims 16-28, are fully encompassed by applicants instant claim 23

Applicants instant claim 19 claims the 3-ureido-pyrazole derivative of claim 15, wherein the heterocyclyl ring is such as piperidino, piperazino or morpholino.

Determining the scope and contents of the conflicting claims

Claim 1 of US Patent No. 6,387,900 anticipates and therefore renders claim 15 as rejected under obvious-type double patenting since claim 1 claims a 3-ureido-pyrazole compound represented by the formula (I) wherein R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group or is a C1-C6 alkyl or arylalkyl group, which is optionally substituted, R1 is –(CH2)n-R3; n is 0 or an integer from 1 to 4; R3 is hydrogen, hydroxy, amino, or a group selected from the group consisting of cycloalkyl, aryl and heterocyclyl, which is optionally substituted; wherein said heterocyclyl is selected from the group consisting of benzodioxolyl, quinolyl, isoquinolyl, quinoxalyl, indolyl, optionally benzocondensed pyrrolyl, furanyl, thienyl, imidazolyl, pyrazolyl, thiazolyl, oxazolyl, isoxazolyl, pyridyl, pyrazinyl, pyrimidyl, pyrrolidinyl, piperidinyl,

benzocondensed pyridinyl, piperazinyl, thiophenyl , and morpholinyl; R2 is hydrogen, or R2 and R1, together with the nitrogen atom to which they are bonded, form a group selected from the group consisting of piperidino, piperazino and morpholino, which is optionally substituted; provided that when n is 0 and R2 is hydrogen, R is a C3-C6 cycloalkyl group optionally substituted with a straight or branched C1-C6 alkyl group.

Ascertaining the difference between the conflicting claims and applicants instant claim 19

The difference between conflicting claim 1 and applicants instant claim 19 is that while claim 1 is fully encompassed by applicants instant claim 15 from which claim 19 depends, it includes more listed heterocyclyls than applicants instant claim 19.

Resolving the level of ordinary skill in the pertinent art

However, it would be obvious to one of ordinary skill in the art that applicants instant claim 19 would be considered obvious over conflicting claim 1 of US Patent NO. 6,387,900 since conflicting claim 1 discloses compounds which are fully encompassed by applicants instant claim 15, from which claim 19 depends and claims the heterocyclyl rings for R3 as benzodioxolyl, quinolyl, isoquinolyl, quinoxalyl, indolyl, optionally benzocondensed pyrrolyl, furanyl, thienyl, imidazolyl, pyrazolyl, thiazolyl, oxazolyl, isoxazolyl, pyridyl, pyrazinyl, pyrimidyl, pyrrolidinyl, piperidinyl, benzocondensed pyridinyl, piperazinyl, thiophenyl , and morpholinyl and for R2 and R1 as piperidino, piperazino and morpholino and since claim 9 of US Patent NO. 6,387,900 discloses specific

compounds that have the heterocyclyl as piperidino, piperazino and morpholino, which shows a preference to the heterocycles as found in applicants instant claim 19.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15, 18, 19 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by WO98/24768 (corresponding page numbers from US Patent 6,043,246 has been included in this rejection since US Patent NO. 6,043,246 is an English 371 of WO 98/24768). WO98/24768 discloses the urea compounds of the formula (I) for the treatment of diseases such as bulimia, obesity or diabetes (abstract and pages 1-2 of WO and column 1 of US 6,043,246). Specific compounds disclosed are for example, examples 1-12 (pages 20-22 of WO and column 12-13 of US patent). The compounds disclosed, for example,are 5-(4-methoxyphenyl)-3-(4-phenylpiperazinyl)-carbonylaminopyrazole; 5-(4-chlorophenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(2-methylphenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(3-methylphenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(4-methylphenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(2-methoxyphenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(3,4-dichlorophenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(4-bromophenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(3-chlorophenyl)-3-(4-

phenylpiperazinyl)carbonylaminopyrazole; 5-phenyl-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(4-dimethylaminophenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole; 5-(3-dimethylaminophenyl)-3-(4-phenylpiperazinyl)carbonylaminopyrazole. Example 22 (page 23 of WO column 14 of US patent) discloses 3-(4-phenylpiperazinyl)carbonylamino-5-(4-pyridyl)pyrazole. These disclosed compounds anticipate the instant claims 15, 18 and 19 because they are fully encompassed by the instant claims as can be seen by the formula (I) of applicants instant claims 15, 18 and 19 wherien R is aryl (which as defined on page 10 of the instant spec can include heteroaryl) optionally substituted with one or more halogen, alkyl, alkoxy and dialkylamino and R1 and R2, together with the nitrogen atom to which they are bonded, form a heterocyclyl or heteroaryl group, which is optionally substituted with aryl.

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday 5:30AM to 2:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph McKane, can be reached at (571) 272-0699.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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